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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Ames et al.	Group Art Unit: 1614
Serial No. 10/038,135	Examiner: Jones, D.
Filed: October 20, 2001	Attorney Docket No. B00-001-2
For: *Primary N-hydroxylamines*	

CERTIFICATE OF TRANSMISSION
I hereby certify that this corr is being transmitted by facsimile to the Comm for Patents 703-872-9306 on June 11, 2004.

Signature _____
Richard Aron Osman

RESPONSE

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Examiner Jones:

Thank you for the Office Action dated Feb 26, 2004.

35USC103(a), Claims 62-131. Krishna et al. (1998, Journal of Medicinal Chemistry 41(18):3477-92) studied the effect of ring size, oxidation state and redox midpoint potentials of five or six-membered secondary nitroxides historically used as biophysical probes. The intermediate reduced forms of Krisha's nitroxides are the corresponding five or six-membered secondary hydroxylamines (e.g. compounds 1b, 2b, 5b, 6b, 9b, 11b-17b, 19b, 22b, 23b, 25b-27b, 29b, 36b-38b, 40b, 42b, 48b, 52b, 53b, and 55b; Krishna (1998) p.3478, col.2, lines 31-33).

Our claims require primary N-hydroxylamines, which are structurally and functionally different from the cyclic secondary hydroxylamines studied by Krishna, especially as they relate to biological systems. By functionalizing a second proton, particularly in a cyclical carbon ring, cyclic secondary amines present substantially different chemical reactivities, in part by reducing the availability (reactivity or nucleophilicity) of the free electron pair of the Nitrogen. This can be seen, for example, in the strikingly different redox potentials of secondary and primary hydroxylamines. Primary hydroxylamines have redox potentials in the 300 mV range (see Fig.3 of Tamilmani et al., 2003, DuPont Electronic Technology,

We petition for and authorize charging our Deposit Account No.19-0750 all necessary extensions of time. The Commissioner is authorized to charge any fees or credit any overcharges relating to this communication to our Dep. Acct. No.19-0750 (order B00-001-2).

Respectfully submitted,
SCIENCE & TECHNOLOGY LAW GROUP

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Encl. Expert Declaration (2 p.)